

THE CAUTIONARY TALE OF LISTER'S STROMB

S. Peter Dance¹ and Maggie Reilly²

¹Cavendish House, 83 Warwick Road, Carlisle CA1 1EB

²Hunterian Museum, Zoology Section, Graham Kerr Building, University of Glasgow, Glasgow G12 8QQ

This is the story of a distinctive seashell which comes to notice when it is portrayed in the first comprehensive iconography of molluscan shells, towards the end of the seventeenth century. Then it vanishes into obscurity, to reappear late in the following century when it is added to the collection of a famous surgeon, William Hunter. There it is destined to remain. Half way through the nineteenth century, when it is still unknown to the scientific community at large, a Glaswegian publishes a description of it and gives it the scientific name *Strombus listeri*. A century later the species is still known only by a handful of specimens but it becomes relatively common in collections by the 1970s. In 1986 the Hunterian specimen is irreparably damaged in an accident, questions are raised about its value, and substantial compensation is paid. End of story. Like many stories it begins romantically but ends violently. A story soon told because the facts are few, it is worth setting down here because it follows the vicissitudes of a unique natural object over almost four centuries, involves a distinguished cast of names, and assembles some facts and suppositions which may otherwise be lost.

On 30th January 1781 George Humphrey (1745?-1825), one of the principal dealers in shells and other natural curiosities in Britain at that time, wrote the following letter to Richard

Pulteney (1730-1801), physician, botanist and shell collector. The letter concerned some shells in the collection of Dr John Fothergill (1712-80) which had just been purchased by Dr William Hunter (1718-83) for his museum in Glasgow. Pulteney copied the letter which was illustrated with two drawings of shells, numbered 1 and 2 (Figure 1). 'If I could but have picked out about 50 shells from Dr F's collection to have sent you', said Humphrey, 'I am sure you would have given me 5 guineas for the sight of them./ No doubt you have heard of his Scallop'd broad flap'd Alatus with the lip turning inwards, the inside a rich purple/ Pompadour No. 1 (somewhat smaller than ye shell./ And of the Alatus Figured No. 1./No. 1. Said to be Figured in Rumphius in his/ larger work of Amboyna which I have/ not seen./ The Duchess of Portland told me a few days/ ago that No. 2 was once the property of/ the famous Jno. Tradescant & on that account/ was much esteemed by Dr Fothergill./ Said to be in Lister (855.12)/ G.H.' (Pulteney, n.d.)

Pulteney added the following note to his copy of the letter: 'Shells, Corals & Insects belonging to Dr F./ valued by Dr Fordyce & Mr Humphreys' amounted to £1600. Dr Hunter had them/ for £1100.'

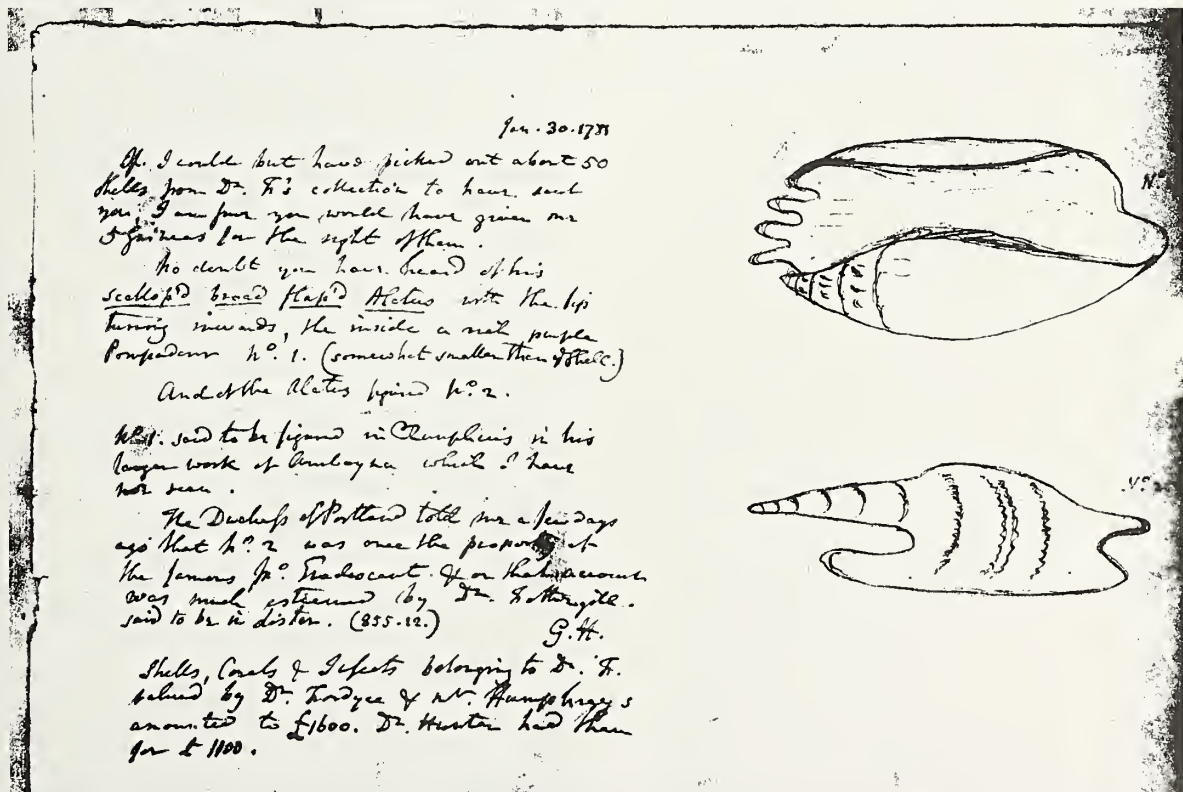


Figure 1: George Humphrey's letter to Richard Pulteney. (The script of the letter is transcribed in the article).

We pass over the *Scallop'd broad flap'd Alatus*, clearly a specimen of the south-west Pacific species *Strombus sinuatus* Lightfoot, 1786, to concentrate on the other shell, now known universally as *Strombus listeri*, Lister's Stromb. Pulteney's copy of the Humphrey letter, the key document, takes the story of this shell back to the mid-seventeenth century, at least, to a time when natural curiosities such as exotic shells were regarded as the playthings of a few dilettante collectors. For John Tradescant is a name associated with the development of gardening and the study of natural history in Britain during the first half of the seventeenth century. If the connection with Tradescant can be validated Lister's Stromb may be regarded as the earliest example of a shell preserved as part of a collection of natural objects, in Britain at least. It would make it contemporary with the most famous item in the Tradescant collection, the Dodo, parts of which are still extant.

There were two John Tradescants, the Elder, who died in 1638, and his son, the Younger, who was born in 1608 and died in 1662. In 1656 John Tradescant the Younger published a catalogue of the 'Rarities' amassed by him and his father (Tradescant, 1656). Class IV of the catalogue (pp. 10-14) lists the 'Shell-creatures', including 'Testacea' (or shells). None of the names on his list seems to have an obvious connection with Lister's Stromb, although it has been suggested that his 'Buccina striata' is the very shell (Leith-Ross, 1984:160). This is supposition merely, however, and the Tradescant connection rests on the hearsay evidence provided by George Humphrey. His source was the second Duchess of Portland, Margaret Cavendish Bentinck (1714-85), celebrated for her extensive collections of natural and artificial curiosities. An enthusiastic conchologist, her collection of shells was the finest in private hands in her day and she would have been aware of the existence of rarities, such as Lister's Stromb, in other collections. Her comment to Humphrey may reasonably be taken as *prima facie* evidence for a connection between the shell and the Tradescant collection.

Humphrey's letter also says, 'said to be Lister. (855.12)' This is a reference to Martin Lister's monumental *Historia Conchyliorum*, the first comprehensive iconography of shells (Lister, 1685-92). Plate 855 Figure 12a (Figure 2) of the first edition of that work is an unmistakable engraving of Lister's Stromb. Furthermore, the engraving, apart from showing the upper extension of the outer lip slightly too long, is a tolerably accurate representation of the shell as it was when entire. The caption to Lister's Figure does not indicate ownership of the shell but almost certainly it was formerly in the Tradescant collection as no other example of Lister's Stromb was known before 1870.

After the sale of the Tradescant collection Lister's Stromb must have changed hands several times before John Fothergill acquired it almost a century later. By 1807, however, it reached its final destination, the Hunterian Museum in Glasgow. Whilst still in London in the years immediately after William Hunter's death, the shell was entered in the Trustees Catalogue by Dr George Fordyce (1736-1802), a friend of Hunter with a fine shell collection of his own. The shell is listed therein under the genus *Strombus* as 'tradescantia', an entry

supporting its former presence in the Tradescant collection. Further support for the Tradescant connection is provided by John Laskey's published catalogue of the Hunterian Museum in which the shell is listed under the genus *Voluta* as 'Tradescantia, S. Sir John Tradescant's Volute, unknown, Unique' (Laskey, 1813:104). The 'S.' in this entry stands for Daniel Carl Solander (1733-82), the gifted pupil of Linnaeus who helped catalogue the Duchess of Portland's shells, sold with the rest of her collections a year after she died (Lightfoot, 1786). Laskey's catalogue entry suggests that Solander may even have handled the shell at some time. Like the Duchess he was still alive when the Fothergill collection was sold to William Hunter.

The Hunterian shell - and consequently the species it represents - remained unknown to students of systematic conchology until the middle of the nineteenth century. London-based conchologists such as the various members of the Sowerby dynasty, the brothers Arthur and Henry Adams, Lovell Augustus Reeve and Sylvanus Hanley seldom travelled as far north as Glasgow to study private collections and they would have considered William Hunter's too old fashioned to be worth the trip anyway. It was left to a native of Glasgow to demonstrate that this shell which had already been around for about two centuries had never been officially described or given a valid scientific name.

As a young man Thomas Gray (1820-1910) was one of a group of keen naturalists living in the Glasgow area which, in 1851, established the Natural History Society of Glasgow. Gray became one of the most active members, concentrating his attention on conchology. In 1852, the year he was elected Vice President of the Society, he gave a series of lectures on shells at Anderson's College (now the University of Strathclyde). As the lectures were well attended and popular it is not surprising that Gray was invited by the Principal of Glasgow University to arrange and classify the shell collection in the Hunterian Museum. When he was engaged on this task he recognised the distinctive features of the stromb shell which he was destined to describe and name. He wasted no time in publishing the description of the shell which he called *Strombus listeri*, in honour of the man who had published an engraving of it many years before (Gray, 1852). In his description he said, 'it is not at all improbable that this specimen was the very individual from which the figure in Lister was taken, as it agrees perfectly in size as well as general contour and is evidently, from the comparative faintness of its coloration, as well as its general appearance, a very old shell'. At the same time he was allowed to make a drawing of the shell, intended for publication, but it never appeared.

Gray was an accomplished artist, as is proved by several bound volumes containing drawings of shells in water-colours. A two-volume work on land shells belonging to the Mitchell Library, Glasgow, shows Gray's artistry at its best, the drawings being both precise and aesthetically pleasing. Two other volumes belonging to the Kelvingrove Museum, Glasgow, show that, with few exceptions, he maintained a consistently high standard when depicting shells (Dance & Woodward, 1986). None of these volumes contains an illustration of

Strombus listeri although, as we have seen, Gray is known to have prepared a drawing of it. In 1996, however, a slender volume containing a further nineteen of his shell drawings (Gray, n.d.) was acquired for the Kelvingrove Museum. Fortunately, one of them shows two exquisitely drawn views of the shell, presumably executed in 1852. The drawing, reproduced here is colour (Figure 4, back cover), is inscribed in ink ‘*Strombus Listeri*. T. Gray./ Mus. Hunter. Glasg/’ A pencilled addition in Gray’s hand reads, ‘See Lister Hist. Conch. Pl. 855 fl2a’.

As the published description of *Strombus listeri* was not illustrated - no fault of Gray’s - it was generally overlooked. So a second example of the species which turned up a few years later was described by G.B. Sowerby, 2nd, as new to science and named *Strombus mirabilis* (Sowerby, 1870). It was to be many years before further specimens were discovered and specialists were slow to realise that Gray had already described the same species under another name. Up to 1960, when only five specimens of *Strombus listeri* had been recorded, it was said to be ‘one of the rarest and most desirable of the world’s *Strombus*’ (Abbott, 1960: 115). By the 1980s, however, many examples had been obtained from its strongholds in the eastern Indian Ocean.

Lister’s *Stromb* was a desirable rarity no longer but the Hunterian shell retained a special aura: it was very old, it was for many years the only specimen known, it was the holotype of the species, and it had been owned or handled by a succession of distinguished personages. Because of its historical interest (Figure 3, back cover), the Hunterian shell was portrayed in a standard work on the history of shell collecting (Dance, 1966). In 1986, partly to celebrate the launch of the second edition of that work in which the shell was again portrayed (Dance, 1986), it was borrowed from the Hunterian Museum for an exhibition staged in the Kelvingrove Museum. At about 8.30 a.m. on 2nd September, the day before the exhibition was due to open, disaster struck. While being suspended over the entrance to the exhibition a heavy title board slipped and fell onto two pedestal-type cases containing shells. One of the cases contained the precious - and fragile - Hunterian shell. Crushed by the weight of the case, it broke into more than two hundred fragments. The sorry tale of the accidental demise of the shell and the ensuing problems of evaluation and remuneration have been dealt with fully elsewhere (Hancock, 1995).

An attempted reconstruction, using the services of a professional ceramics conservator, was only partially successful, two large pieces and about forty small fragments being the end result (Figure 5). A report on the reconstruction notes that the specimen ‘retains its historical value and most of its scientific value but is no longer any use for illustration or exhibition’ (Reilly, 1996).

The only positive outcome of the accident was the discovery of forams and other microfauna in the fine sand which spilled out when the shell was crushed. The material was examined closely by Dr Robert Wynn Jones, an expert micropalaeontologist, who has analysed his findings in the accompanying table (table 1). The scanning-electron micrographs show two of the forams identified: they are *Globigerinoides*

triloba or *quadrilobata* (Figure 6) and *Heterolepa margaritifera* (Figure 7). Together with the other forams and the ostracods listed in the table they comprise an assemblage typical of the outer shelf of the Eastern Indian Ocean, from about 100-1000 fathoms depth at low to moderate latitudes. The shell may have come to rest nearer than this, for it is possible, indeed probable, that it was drawn up on a ship’s lead line (a line with a weighted and greased end used to test the depth and nature of the sea floor). The assemblage has an Indo-Pacific aspect but it is not possible to be more precise than this. So it does not provide any additional clues to the original source of the Hunterian shell.

This, then, is the eventful history of a uniquely interesting natural object amongst the most celebrated if little publicised items in the Hunterian Museum at Glasgow which was crushed accidentally on what may have been the one occasion when it was allowed out of that institution. Fortunately, some excellent portraits of the complete shell in various media were executed at different times. These, at least, help to mitigate the disaster which reduced to fragments a shell which had survived intact for almost four centuries.

Table 1

List of Foraminifera and other organisms from the *Strombus listeri* sand.

Transcript of Robert Wynn Jones’s list. Items 1 - 24 are the key to a reference slide deposited in the Zoology Section of the Hunterian Museum by Dr Wynn Jones

Planktonic foraminifera

1. *Globigerinoides quadrilobatus* (D’Orbigny 1846)
includes *G. immaturus* and *G. triloba*
2. *Globigerina bulloides*, D’Orbigny, 1826
3. *Globigerella obesa* (Bolli, 1957)
4. *Pulleniatina obliqueloculata*, Parker and Jones, 1865
5. *Globigerinoides ruber* (D’Orbigny 1839)
6. *Globorotalia scitula* (Brady 1882)

Benthonic foraminifera

7. *Spiroculina* cf. *communis*, Cushman and Todd, 1944
8. *Adelosina* sp.
9. *Quinqueloculina?* sp.
10. *Lenticulina* sp. 1
11. *Lenticulina* sp. 2
12. *Sphaeroidina bulloides* D’Orbigny 1826
13. *Loxostomum amygdalaeformis*, Brady 1881
14. *Brizalina spathulata* (Williamson 1858)
15. *Heterolepa margaritifera* (Brady, 1881)
16. *Heterolepa praecincta* (Karrer 1868)
17. undeterminate
18. *Anomalinoidea flinti* (Cushman 1931) (?*Melonis affinis* juv.)
19. *Hanzawaia* sp.
20. *Eponides berthelotianus* (D’Orbigny 1839)
21. *Pseudortalia schroeteriana* (Parker and Jones, 1862)

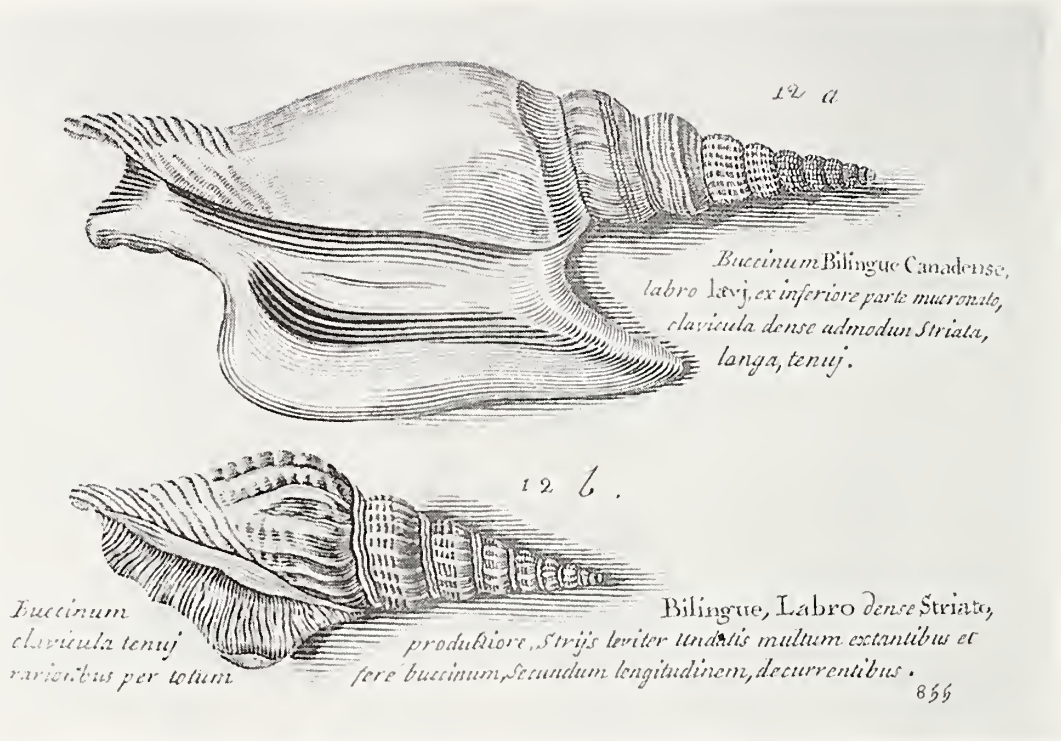


Figure 2: The plate of Lister's stromb from the *Historia Conchyliorum*

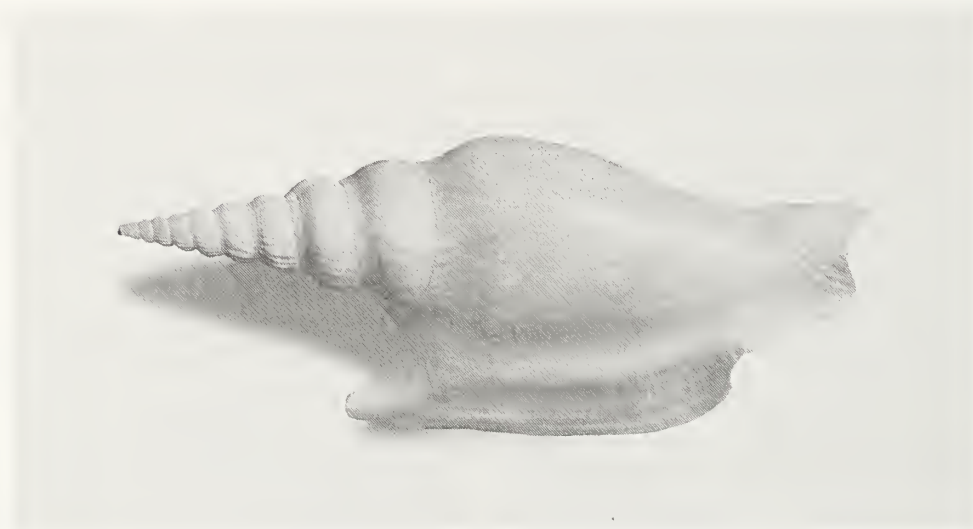


Figure 3: *Strombus listeri*, the complete shell



Figure 4: Thomas Gray's drawing of *Strombus listeri*

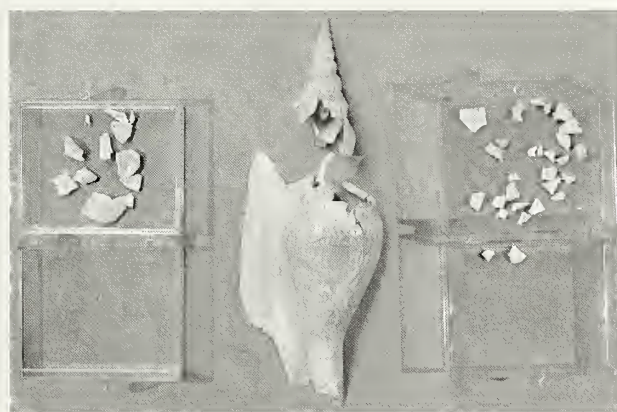


Figure 5: The partial reconstruction of the shattered shell

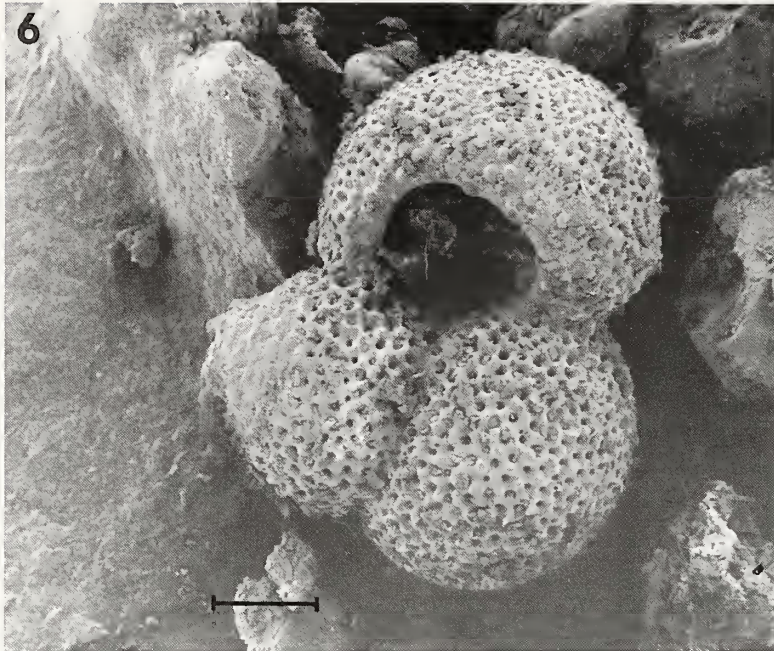


Figure 6: SEM of *Globigerinoides triloba* or *quadrilobata*, one of the species of foraminifera in the shell sediment (scale bar = 100 μm).



Figure 7: SEM of *Heterolepa margaretifera*, one of the species of foraminifera in the shell sediment (scale bar = 100 μm).

- Ostracoda
- 22. *Cytherella*
- 23. bairdiid
- 24. trachyleberidid

Other groups

- Scaphopods (*Dentalium* sp.?)
- microgastropods
- microbivalves
- echinoid debris
- pteropods (*Limacina* sp.?)

ACKNOWLEDGEMENTS

We are very grateful to Richard Sutcliffe of the Science Department of Glasgow Museums for providing us with a copy of Gray's coloured drawing of the shell. We are also grateful to Geoff Hancock and Fred Woodward formerly of Glasgow Museums for useful discussions and drawing our attention to the existence of the Gray drawings. We would like to thank Dr Robert Wynn Jones for identifications of the forams in the shell sand and Professor John Murray and Dr Andrew Gooday of the Southampton Oceanography Centre for further help with identifications of the foraminifera. Kathie Way of the Natural History Museum, London kindly made available a photocopy of the note in the Pulteney Correspondence.

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